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(54) **Image recording material and lithographic printing plate precursor**

(57) An image recording material comprising (a) an infrared ray absorber and (b) a polymer to lower a dynamic coefficient of friction to from 0.38 to 0.60, which can undergo image formation upon exposure with infrared laser; or a long-chain alkyl group-containing polymer having a reduction rate of coefficient of friction to a base

polymer of from 0.5 to 0.97, the polymer being a copolymer of a long-chain alkyl group-containing monomer having 6 or more carbon atoms and a hydrophilic monomer.

**EP 1 334 823 A3**



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# EUROPEAN SEARCH REPORT

Application Number  
EP 03 00 2591

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 6 340 815 B1 (E.VERSCHUEREN ET AL.) 22 January 2002 (2002-01-22) * column 1, line 9 - line 15 * * column 4, line 6 - line 47 * * column 7, line 47 - column 8, line 53 * * column 14, line 51 - column 15, line 8 * * claims 1,2 * -----	1	INV. B41C1/10 B41M5/36
X	EP 1 136 255 A (FUJI PHOTO FILM COMPANY LIMITED) 26 September 2001 (2001-09-26) * claims 1-11 * * paragraphs [0022] - [0152] * -----	1,2,5,6	
X	EP 1 120 245 A (FUJI PHOTO FILM COMPANY LIMITED) 1 August 2001 (2001-08-01) * paragraphs [0002], [0031] - [0038], [0046] - [0049]; claims 1,5-9 * -----	1,2,5,6	
			TECHNICAL FIELDS SEARCHED (IPC)
			B41M B41C
<del>The present search report has been drawn up for all claims</del>			
Place of search <b>The Hague</b>		Date of completion of the search <b>26 April 2006</b>	Examiner <b>Bacon, A</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

2

EPO FORM 1503 03 82 (P04C01)

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☒ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:  
1, 2, 5, 6
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claim: 1

Infrared-sensitive image recording material comprising (a) infrared absorber and (b) polymer to lower the dynamic coefficient of friction to from 0.38 to 0.60.

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2. claim: 2

Lithographic printing plate precursor having a recording layer comprising (a) infrared absorber, (b) water-insoluble and alkali-soluble resin, and (c) a polymer having a structural unit represented by formula (IV) shown in claim 2.

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3. claims: 3,4

Imaging material and lithographic printing plate precursor having an infrared-sensitive recording layer comprising (a) infrared absorber, (b) base polymer, and (c) a long-chain alkyl group-containing polymer having a reduction rate of coefficient of friction to the base polymer of from 0.5 to 0.97 and being a copolymer of a long-chain alkyl group-containing monomer having six or more carbon atoms and a hydrophilic monomer.

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4. claims: 5, 6

Image recording material having a recording layer comprising a long-chain alkyl group-containing polymer and an infrared absorber, with fine protrusions comprising the long-chain alkyl group-containing polymer being present on the surface of the recording layer, together with a process for producing the imaging material.

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 03 00 2591

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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26-04-2006

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82